

boards, 22 sofas, 12 chests-on-chests, and 12 chests and cupboards. Out of this total of 658 pieces, Mr. Sack rates 146 as "good," 116 as "better," and 396 as "best." The result is a well-stocked museum that the reader can visit with no greater effort than that of opening this book. Added to it is the flavor of personal opinion which makes interesting reading.

In the foreword, Israel Sack has compressed his experience of nearly fifty years as an antiques dealer into four and a half pages of picturesque and vivid comment. It is followed by a brief introduction by John Meredith Graham II, curator of Collections of Colonial Williamsburg.

Finally, the brief chapter at the end on "Restorations, Replacements and Imperfections," where Mr. Sack enumerates the basic parts that each furniture form should retain and lists the permissible major restorations, should prove most useful. Thorough study of it will certainly help in determining whether a particular piece is a desirable antique or an overly restored example which might better be left for somebody else who has not read this book.

THOMAS H. ORMSBEE

Pound Ridge, New York

Father of Radio: The Autobiography of Lee de Forest. (Wilcox and Follett Company, Chicago, 1950. Pp. 502. \$5.00.)

This ebullient autobiography spans three-quarters of the century preceding 1950, portraying in intimate detail a fragment of the technological "life and times" of that period. The fragment is in no sense a survey or a general commentary. Rather, it suggests how some of the subtler forces are at work altering the shape of human living—the forces of human enterprise operating in the field of science and technology.

De Forest has become known as "the father of radio" because of his invention of the audion-tube amplifier in the first decade of the twentieth century. Actually, radio has had many fathers, and, while De Forest's invention was necessary, it was never sufficient. His achievement was to find a reliable way of detecting weak radio signals at great distances from their source and of multiplying the strength of these signals so they could be used. The result was that commercial wireless broadcasting could become a national and international communications industry, the radio could join any family

circle anywhere, and millions of dollars could be spent every year on public information and entertainment.

De Forest is a strong personality. There is obvious effort—either his or that of his editors—to present him as a dreamer of profound esthetic sensibilities and as a vigorous inventive genius. The impression is, however, that the esthetic sensibilities are extravagant rather than profound.

He is convincingly shown to be a dreamer. Of his dynamic, imaginative curiosity and his inventive ability there can be no doubt, either on the score of quality or on the score of quantity of innovations and patents produced. The wide range of his personal activities and the gusto for living that permeates the book bespeak the intense vitality of the man.

The superficial reader may easily draw the inference that here is the story of inexplicable, though modest, genius at work. Even the author is pressed to explain just how he came to be the inventor of the grid amplifier. True, he can tell in detail what happened when he stumbled upon the idea of applying the scientific principle underlying the triode tube. But he stresses his luck and forgets Pasteur's sage comment that "chance favors the trained mind." He ascribes his achievements to the moral virtues of diligence, industry, and a conscientious sense of responsibility and ignores the fact that these are not enough. The book only dimly suggests its most significant conclusion: the fact that the inventive process is an intricate pattern of thought and action requiring not only moral virtues but also expert practice of scientific research, rigorous application of speculation and theory to experimental test and design, and free access to a pool of knowledge that is bottomless because it is a consequence of the sustained, independent, and often random inquiry of many minds and hands.

THOMAS M. SMITH

University of Wisconsin

Life of the American Workman. By WALTER P. CHRYSLER, in collaboration with Boyden Sparks. (Dodd, Mead & Company, New York, 1950. Pp. 219. \$3.00.)

This book is an autobiography of Walter P. Chrysler, one of the greatest figures of America's largest manufacturing industry, automobile manufacturing. It consists of eight chapters written by Chrysler, in collaboration